VLSI DSP

1. Loop bound, iteration bound

2. pipeline 基本原理与应用 , cut set

3. parallel processing

4. retiming

5. unfolding (folding)

6. Systolic array (FIR, vector, 有关映射向量物理意义)

7. Parallel FIR/DCT ( algm strength reduction)

8. Loo-ahead pipeline !! high-speed recursive filter design 可能考大的

9. Bit level arithmetic 二进制加减乘

10. Redundant arithmetic (Radix-2, Radix-4) , 应用

11. Numerical strength reduction (常数乘法，矩阵向量相乘)

12 Low Power Design methods, dual-Vt, dual-Vdd, etc

13. 近似计算 -not considered

14. Two classic papers on Turbo decoder design!!

Homework: 40%, Project: 30%, Final exam: 30%

Close book, but can bring a crib sheet with half A4 size of paper.